IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants:	Tom A. Grigliatti, et al.	**Examiner:**	Nancy S. Vogel
Serial No.:	09/896,888	**Art Unit:**	1636
Filed:	June 29, 2001	**Docket:**	16365Z
For:	INSECT EXPRESSION VECTORS	**Confirmation No.:**	**3346**

Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

DECLARATION OF DR. TOM A. GRIGLIATTI
UNDER 37 C.F.R. §1.132

Sir:

I, TOM A. GRIGLIATTI, hereby declare as follows:

1. I am one of the co-inventors of the above-identified application.

2. I hold a Bachelor of Science Degree in Biology, a Masters Degree in Cell and Molecular Biology and a Doctorate Degree in Genetics. My research interest is in the field of Genetics and Molecular Biology, and I have authored 100 publications in this field. Currently I am Professor at the Department of Zoology, University of British Columbia. A true and correct copy of my curriculum vitae is attached hereto as Exhibit A.

3. I have reviewed the above-identified application (hereinafter referred to as '888 application), and I am familiar with the subject matter therein. The '888 application is directed to shuttle vectors that are characterized by a selectable marker coding sequence, which is linked to a promoter region containing an insect cell promoter and a prokaryotic promoter. The selectable marker is expressed in insect cells and bacterial cells that are transformed with the shuttle vector, and confers a phenotype selectable in

both insect cells and bacterial cells. The vectors of the '888 application have the advantage of utilizing one marker that is effective for selection in both insect cells and prokaryotic cells.

4. I have also read the Final Action dated April 20, 2004, issued in the '888 application. It is my understanding that the Examiner holds the opinion that the vectors described in the specification are limited to those containing the zeocin resistance gene, and that the specification of the '888 application does not describe or provide guidance on the selection of other resistance marker genes that may function in both insect and prokaryotic cells.

5. Contrary to the Examiner's contention, I observe that the '888 application clearly states that the shuttle vectors can be adapted for use with a variety of antibiotic selection schemes, i.e., not limited to selection based on resistance to zeocin. See page 67, lines 20-21, for example.

6. The attached exhibits depict several vectors suitable for selection based on resistance to different antibiotics in both insect cells and bacterial cells.

7. Exhibit B depicts vector p2Zop2F, which is also described in Figure 8a of the '888 application. This vector contains the Opie2 insect promoter and the EM7 prokaryotic promoter, as well as the zeocin resistance gene (Zeo R). In addition to a zeocin selection scheme described in the '888 application, this vector has also been shown to be selectable based on resistance to phleomycin. For bacterial selection, 5 μg/ml phleomycin is added to LB medium and plates are incubated at 37 °C for 24 hrs. For insect cell selection, 25 μg/ml phleomycin is added to culture media and tissue culture plates are incubated at 27°C until reaching confluency.

8. Exhibit C depicts vector p2Hf, which contains the Opie2 insect promoter and the EM7 prokaryotic promoter, as well as the hygromycin resistance gene. The vector has been shown to be selectable based on resistance to hygromycin in both insect

cells and bacterial cells. For bacterial selection, 50 μg/ml hygromycin is added to low salt LB (10 g/l tryptone, 5 g/l yeast extract and 5 g/l NaCl) and plates are incubated at 37°C for 24 hrs. For insect cell selection, 750 μg/ml hygromycin is added to culture media and tissue culture plates are incubated at 27°C until reaching confluency.

9. Exhibit D depicts vector p2PaOp2F+EM7, which contains the Opie2 insect promoter and the EM7 prokaryotic promoter, as well as the puromycin resistance gene (PAC). This vector has been shown to be selectable based on resistance to puromycin in both insect cells and bacterial cells. For bacterial selection, 200 μg/ml puromycin is added to low salt LB and plates are incubated at 37°C for at least two days. For insect selection, 2 μg/ml puromycin is added to the media and tissue culture plates are incubated at 27°C until reaching confluency.

10. Exhibit E depicts vector p2Ba2F, which contains the Opie2 insect promoter and the EM7 prokaryotic promoter, as well as the blastacidin S resistance gene (Blast R). This vector has been shown to be selectable based on resistance to blastacidin S in both insect cells and bacterial cells. For bacterial selection, 100μg/ml blastacidin S is added to low salt LB and plates are incubated at 37°C for 24 hrs. For insect cell selection, 25 μg/ml blastacidin S is added to culture media and tissue culture plates are incubated at 27°C until until reaching confluency.

11. Exhibits F-H depict vectors p2Z2f-EM7, p2PaOp2F, and p2Ba2F-EM7, respectively. These are essentially the same as p2Zop2f, p2PaOp2F+EM7, and p2Ba2F, respectively, as discussed above, except that the EM7 promoter is not present on p2Z2f-EM7, p2PaOp2F, and p2Ba2F-EM7. The Opie2 promoter apparently is sufficiently active in both insect cells and prokaryotic cells to drive the expression of the selectable marker gene.

12. For bacterial selection based on p2Z2f-EM7, 25μg/ml zeocin is added to low salt LB (10 g/l tryptone, 5 g/l yeast extract and 5 g/l NaCl) and plates are incubated at 37°C until colonies appear which is generally 24-48 hours. For insect cell selection

based on p2Z2f-EM7, 750 μg/ml zeocin is added to culture media and tissue culture plates are incubated at 27°C until reaching confluency.

13. For bacterial selection based on p2PaOp2F, 200μg/ml puromycin is added to low salt LB (10 g/l tryptone, 5 g/l yeast extract and 5 g/l NaCl) and plates are incubated at 37°C until colonies appear which is generally 72 hours. For insect cell selection based on p2PaOp2F, 2μg/ml puromycin is added to culture media and tissue culture plates are incubated at 27°C until reaching confluency.

14. For bacterial selection based on p2Ba2F-EM7, 100μg/ml blastacidin S is added to low salt LB and plates are incubated at 37°C until colonies appear which is generally 48 hours. For insect cell selection based on p2Ba2F-EM7, 25 μg/ml blastacidin S is added to culture media and tissue culture plates are incubated at 27°C until reaching confluency.

15. I declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and that those statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

By: _____ Dated: Sept 15, 2004

THE UNIVERSITY OF BRITISH COLUMBIA
PERSONAL DATA FORM

Date of most recent revisions or verification of Data Form by faculty member (please initial):

July 2004 _____

DEPARTMENT: Zoology

1. BIOGRAPHICAL DATA

Name: GRIGLIATTI, Thomas Anthony

Rank: Professor

Date of Birth: November 24, 1944

Citizenship: U.S.A. (Landed Immigrant in Canada)

2. EDUCATION

Degree	Dates	Institution	Supervisor
UNDERGRADUATE			
B.S. Biology	1962-66	Santa Clara Univ.	
GRADUATE			
M.Sc. Cell & Molecular Biol.	1967-68	San Francisco State Univ.	Sarane T. Bowen
Ph.D. Genetics	1968-71	Univ. of British Columbia	D.T. Suzuki

3. PROFESSIONAL EMPLOYMENT RECORD

a) Teaching, professional or research positions held prior to U.B.C. appointment (indicate rank or title, dates and name of institution for each position held):

dates	title	Dept. & Institution
1972	PDF	Molec. Biophys. & Biochem., Yale Univ., New Haven, Conn., USA
1973-75	PDF	Biochem., Univ. of British Columbia
1975-77	Assistant Professor	Dept. of Zoology, Indiana Univ., Bloomington, Indiana, USA

b) Date of first appointment at The University of British Columbia: July 1, 1977

c) Rank at which first appointed: Assistant Professor

d) Subsequent ranks including dates of promotion:
Assistant Professor - July 1, 1977
Associate Member, Dept. of Medical Genetics - June 1, 1980 - *current*
Associate Professor - July 1, 1982
Member, Molecular Genetics Center - July 1, 1982
Member, Biotechnology Laboratory Training Program - March 1988
Professor - July 1, 1988

3 e) Date of granting of Appointment without Term:

July 1, 1982

f) Other professional appointments:

Position appointment	Organization	Dates of
President & CEO	InCell Expressions Systems, Inc.	1999 – *current*
Vice-President & CSO	Neuro Therapeutics, Inc.	2002 – 2003
Associate	Canadian Genetic Diseases Network Centre of Excellence	2000 – *current*
Member	ICORD (International Collaboration on Repair Discoveries)	2000 - *current*

g) Record of leaves of absence (indicate dates, duration, type of leave, and whether paid or unpaid):

None

4. PROFESSIONAL ACTIVITIES (details and dates)

a) Academic or professional awards and distinctions:

1972-74 Jane Coffin Childs Fellowship for Medical Research (declined)

1972-75 Helen Hay Whitney Postdoctoral Fellowship

2003-04 Killam Senior Research Prize

b) Membership on editorial boards:

1986-88 Associate Editor, Developmental Genetics

c) Membership on peer review committees:

Brock, H. (Zoology, UBC) - member of hiring committee; member of reappointment committee
Steeves, J. (Zoology, UBC) - member of promotion committee (Assoc. Prof.)
Moerman, D. (Zoology, UBC) - member of hiring committee
Jacobs-Lovena, M. (Anatomy & Cell Biology, Case Western Reserve Univ.) - External Reviewer, promotion (Assoc. Prof.) and tenure committees - 1986
Bell, J. (Genetics, Univ. of Alberta) - External Reviewer, promotion to Professor, 1988
Gass, C.L. (Zoology, UBC) - member of promotion committee (Prof.) 1989
Adamson, M. (Zoology, UBC) - Chair, hiring committee 1989
Cell Biology Faculty Position in Zoology - Chair, hiring committee
Steeves, J. (Zoology, UBC) - member of promotion committee - 1990
Arking, R. (Biology, Wayne State Univ.) - External Reviewer, promotion to Professor 1990
Head of Botany (UBC) - member of search committee - 1990
Head of Zoology (UBC) - member of search committee - 1991
NSERC Women's URF (Zoology, UBC) - member of search committee - 1991/92
Matsuuchi, L. (Zoology, UBC) - member of reappointment committee - 1992

4 c) Membership on peer review committees - *continued.* . . . :

Snutch, T. (Biotechnology Lab., UBC) - Chair, reappointment committee - 1992
Berger, J. (Zoology, UBC) - Chair, promotion committee to Professor - 1992
Population Genetics Faculty Position in Zoology - Chair, hiring committee - 1994
Dr. R. Redfield, Reappointment Committee - 1994
Dr. L. Matsuuchi, Reappointment Committee - 1994
Dr. John Locke (Genetics, Univ. of Alberta) - External Reviewer, Tenure & Promo. to Assoc. Prof.1994
Dr. M. Adamson, Promotion Committee - 1995
Whitlock, Michael (Zoology, UBC) - Chair, hiring committee for Evolution/Pop./Genetics - 1995
Otto, Sara (Zoology, UBC) - Chair, - hiring committee for Theoretical Evolutionary Biol. - 1995
Matsuuchi, L. (Zoology, UBC) - Chair, Tenure and Promotion to Assoc. Prof. committee - 1996
Auld, V. (Zoology, UBC) - Reappointment Review Committee - 1996
Taylor, E. (Zoology, UBC) - Chair, Promotion to Assistant Prof. - Review Comm. - 1996/'97
Redfield, R. (Zoology, UBC) - Tenure and Promotion to Assoc. Prof - 1997
Whitlock, M. (Zoology, UBC) - Reappointment Review Committee – 1997
Lasko, P. – MRC Senior Scientist, McGill University - 1997
Dr. Barbara Wakimoto (Zoology, U. of Washington) External Reviewer, Promotion to Professor - 1997
Dr. Kent Golic (Biology, Univ. of Utah) External Reviewer, Tenure & Promotion to Assoc. Prof. - 1997
Dr. James Kennison (Natl. Institutes of Health) External Reviewer, Promotion to Research Scientist (= Assoc.Prof.) - 1997
Moerman, Donald(Zoology, UBC) Promotion Review Committee - Promotion to Full Professor - 1998
Whitlock, M. (Zoology,UBC) Chair, Tenure and Promotion Committee -1999
Tetzlaff W. (Zoology, UBC) Promotion to Professor - 1999; assumed Chair, Brock on sabbatical
Gass, L. (Zoology, UBC) Promotion to Professor – 1999
Ellis, James - Senior Scientist (equiv. to professor) Hospital for Sick Children, Toronto -2000
CHORD Assist. Prof. Hiring Committee - 2000
Auld, V., Tenure and Promotion Committee – 2000
Kasinsky, H. Promotion to Professor – 2001/2002
Pante, N. Review for re-appointment as Assistant Professor – 2002/2003
Weiler, Karen (Idaho State University) Tenure and Promotion to Associate Professor 2003
Duttaroy, Atanu (Howard University) Tenure and Promotion to Associate Professor 2003

d) Positions as officer in professional societies:

Canadian Society of Zoologists - - Best Ph. D. Thesis Awards Committee

Candadian Federation of Biological Societies

1993-1995 CFBS Executive Committee, Genetics Society of Canada Representative

Genetics Society of America

1991-95 Member, Board of Directors Genetics Society of America,

Genetics Society of Canada

1983-85 Director, Genetics Society of Canada

1985-87 Chairman, New Initiatives Committee, Genetics Society of Canada

1986-88 Nominations Committee, Genetics Society of Canada

1991-93 Vice-President of Genetics Society of Canada

1993-95 President of Genetics Society of Canada

1995-96 Past-President, Genetics Society of Canada (Member of Executive)

1996-98 Future Directions Committee, GSC

e) Professional consultancies:

1972 - '73	Committee to Combat Huntington's Disease (Scientific Advisor)
1980	Consultant for Open Learning Institute (declined)
1980 – '96	Member of Executive, Genetics Graduate Programme, UBC
1992	NATO Survey Group on Developmental Biology, Brussels, Belgium
1993 - '96	MRC Grant Council, Genetics
1994 –'99	International Fisheries Gene Bank
1997- *current*	NASA and Canadian Space Agency, Space Station - Science Lab Advisor
2000- *'04*	Research Technologies Corporation, Inc.
2001 – '02	Sedicim Pharmaceuticals, Inc.
2001- *current*	Dendreon Pharmaceuticals, Inc.
2002 – *'03*	Neuro Therapeutics, Inc.

f) National and international conferences and symposia organized:

1979	Chairman, Behavioral and Developmental Genetics Session, US/Canadian Genetics Society Meetings
1980	Chairman, Biochemical Genetics Session, Genetics Society of America Meeting
1981	Co-chairman, Developmental Genetics Session, Genetics Society of America Meeting
1983-84	Organizer, Joint US/Canadian Genetics Societies Meeting, held at UBC, 1984
1985-88	Organizer, Genetics Society of Canada National Lectureship Series
1986-88	Program Committee, XVI International Congress of Genetics
1988	Workshops Organizer, Developmental Genetics, International Congress of Genetics XVI
1989-90	Program Committee, joint US/Canadian Genetics Society Meetings July 1990
1994-95	Genetics Society of Canada and Drosophila Genetics Joint Meetings co- organizer, Quebec
2000	Organizing Committee, joint US/Canadian Genetics Society Meetings, Vancouver

g) Invited symposia lectures:

1984	Symposium Speaker and Chairperson, Chromatin Structure and Gene Expression, North American Drosophila Meeting
1985	Symposium Speaker, Genes in Development, Canadian Congress of Biology
1986	Symposium Speaker, Brookhaven Symposia in Biology XXXIV, Aging Process in Animals
1988	Symposium Speaker, Jackson Laboratory Symposia on the Genetics of Aging
1988	Symposium Speaker, XVIII International Congress of Entomology, Vancouver, B.C.
1988	Symposium Speaker, North American Drosophila Meetings
1989	Symposium Speaker, Gerontological Society of America Annual Meeting
1990	Symposium Speaker, EMBO International Meeting on Chromosome Structure; Italy
1993	Symposium Speaker, Insect Biotechnology Meeting
1994	Symposium Speaker, 7th International Symposium on the Genetics of Industrial Microorganism; Montreal
1994	Symposium Speaker, Molecular Biology in Systematics and Biodiveristy, Insect Molecular Biology and Biotechnology Meetings; Toronto
1995	Symposium Speaker, International meetings on Chromosome Structure; Hawaii, U. S. A.
1996	Symposium Speaker, Insect Biotechnology Meetings; Toronto
1996	Symposium Speaker, Chromatin Meetings, Tahoe Calif. (sent Res. Assoc. Dr. S. Ner; I was unable to travel due to by-pass surgery)
1996	Symposium Speaker, Pacific Rim Biotechnology Meetings; Bangkok, Thailand
1997	Symposium Speaker, Canadian Drosophila Genetics Meeting; Whistler, B. C.
1997	Symposium Speaker, EMBO International Meeting on Chromatin Structure; Cortona, Italy
1997	Symposium Speaker, Biotechnology Conference; Toronto
1997	Symposium Speaker, International Lepidoptera Molecular Biology Conference; Crete

1998 Symposium Speaker, Society for Experimental Biology; York, England
1998 Symposium Speaker, Biotechnology Conference, Niagra-on-the-Lake, Ontario
1999 Symposium Speaker, Bio 99 Conference, Seattle Washington,

g) Invited symposia lectures.....*continued*

1999 Symposium Speaker, Molecular Pharming Conference, Guelph Ontario
1999 Symposium Speaker, Int. Meeting on Chromatin Structure & Gene Regulation, New York
1999 Symposium Speaker, Entomological Society of Canada Meeting,
2000 Symposium Speaker, International Biotechnology Conf. June, 2000
2000 Symposium Speaker, Current Topics in Gene Expression, Sept. 2000 - San Diego, Cal, USA
2001 Symposium Speaker, EMBO International Chromatin Meeting Cortona, Italy June
2001 Symposium Speaker, NATO International Workshop, Enhancing Biocontrol Agents and handling risks Florence, June
2003 Symposium Speaker, 6th International Chromatin Structure and Gene Regulation; Ravello, Italy
2004 Symposium Spearker, Wialliamsburg Foundation, Baculovirus and Insect Cell Culture Savannah, Georgia, February
2004 Symposium Speaker, IBC 9th International Conference on Receptors, San Diego Calif., Oct.
2005 Symposium Speaker, International Conference on Chromatin Structure and Function,

h) Invited lectures

1978 Invited Lectureship, Washington Univ., St. Louis, MO (Developmental Genetics)
1979 Invited Lecture, Univ. of Saskatchewan
1980 Invited Lecture, Univ. of Victoria
1984 Heritage Scholar Lecturer, Univ. of Alberta
1985 Invited Lecture, Univ. of Washington
1986 Heritage Scholar Lecturer, Univ. of Calgary
1988 Heritage Scholar Lecturer, Univ. of Alberta
1989 Invited Lecturer, Univ. of Ottawa
1989 Distinguished Lecturer Series - Molecular, Cell & Developmental Biology Program, Iowa State Univ.
1991 Invited Lectureship, Washington Univ., St. Louis, Mo. (seminar and 2 lectures)
1992 Invited Lectureship, Institute of Molecular and Cell Biology, Laval Univ., Ste. Foy, Quebec (seminar and 2 lectures)
1994 Invited Lecture, Queen's University
1994 Invited Lecture, University of Toronto
1995 Invited Lecture, Martin Luther Univ., Halle, Germany
1995 Invited Lecture, Univ. of Berlin, Germany
1995 Invited Lecture, McGill University
1996 Invited Lecture, Genetics Program, UBC
1999 Invited Lecture, Univ. of Saskatchewan
2000 Invited Lecture, Dendrion Pharmaceuticals, Seattle Washington
2001 Invited Lecture, University of Nebraska, Lincoln Nebraska
2001 Industrial Research Technology Institute Taipei, Taiwan
2002 Heritage Scholar Lecture, University of Alberta
2003 Invited Lecture, Dendrion Pharmaceuticals, Seattle, Washington
2003 Invited Lecture, Dalhousie University
2004 IBC, Drug Discovery Series 9th International Meeting: GPCRs San Diego, California

i) List all funded research awards, including source, and subject. Please list co-investigators where appropriate.

1978-79 NAHS Grant $5,000
1978-79 UBC NSERC Equipment Grant..... 13,000
1979-82 NSERC Grant with D.T. Suzuki ..... 71,000 /annum

1979-80	NAHS Grant	5,000	
1979-80	Banting Research Foundation	3,300	
1979-81	B.C. Health Care Research Foundation	21,000	
1979-80	UBC NSERC Equipment Grant	3,900	
1980-81	NAHS Grant	4,000	

i) **List all funded research awards - *continued* . . . . .**

1980-81	UBC NSERC Equipment Grant	5,000	
1981-84	NSERC Strategic Grant	49,000	/annum
1982-85	NSERC Team Grant (with D.T. Suzuki)	60,000	/annum
1982-85	National Institute of Health Grant (USA)	80,000	/annum
1983-85	NSERC Strategic (H. Brock co-investigator)	63,000	/annum
1984	NSERC Strategic Equipment (with H. Brock)	28,100	
1984	NSERC Equipment Grant	20,142	
1985-88	NSERC Operating Grant	57,000	/annum
1986	UBC-NSERC Equipment Grant	6,800	
1986	NSERC Equipment Grant	9,000	
1986	UBC-NSERC Equipment Grant	33,000	
1986	UBC-Research Development Fund (with H. Brock)	44,000	
1986-88	NSERC Strategic Grant	42,700	/annum
1987-90	MRC Grant (G. Spiegelman co-investigator)	67,000	/annum
1988-91	NSERC Operating Grant	63,200	/annum
1989	NSERC Equipment Grant	24,000	
1990-93	NCI Operating Grant	86,000	/annum
1990-94	Centres of Excellence, Insect Biotechnology	120,000	/annum
1991-92	NSERC Scientific Exchange Award	9,000	
1991-96	NSERC 5-Year Operating Grant	86,600	/annum
1993	NSERC Conference Grant (Genetics Society of Canada)	7,500	
1993-95	B.C. Science Council	75,000	/annum
1993-96	NCI Operating Grant (with G. Spiegelmen, Microbiology)	95,000	/annum
1994	NSERC, Equipment Grant	15,000	
1994-97	NSERC, Strategic Grant	101,000	/annum
1995-96	Agriculture Canada Grant	28,000	/annum
1995-96	DuPont USA Grant (with John Gosline - clone spider silk genes)	34,000	/annum
1996-97	NCI Operating Grant (with G. Spiegelman, Microbiology)	48,000	/annum
1996-97	NSERC Operating Grant (extension for 1 year)	86,600	/annum
1996-99	MRC Operating Grant	86,292	/annum
1997-99	NSERC Operating Grant	46,600	/annum
1997-99	Kinetek Pharmaceuticals Research Grant	20,000	/annum
1997-2000	NSERC Strategic Grant	98,867	/annum
1998-2000	B.C.Health Research Foundation Grant	49,100	/annum
1998-1999	Astra Pharmaceutical Research Grant	44,160	/annum
1999-2002	Canadian Space Agency (with A.G. Lewis)	50,000	/annum
1999-2004	NSERC Operating Grant	59,450	/annum
2000	NSERC Equipment Grant	29,645	
2000	B.C. Ministry of Adv. Education and Training	24,000	
2001-2004	NSERC Strategic Grant	165,500	/annum
2001-2006	CIHR - Interdisciplinary Health Research Team Grant (Dr. Jeanette Holden, Queen's University, Team Leader)	832,000	/annum
2001	CGDN Strategic Project Grant	66,560	/annum
2001	NSERC Equipment Grant (Cell Biology Group)	79,358	
2001-'02	InCell Expression Systems, Inc. (contract)	46,180	
2002-	Neuro Therapeutics, Inc. (contract)	526,223	/annum
2002	CFI ICORD fund (Dr. John Steeves, Group Leader)	12,900,000	
2002-'03	CIHR Proof of Principle	100,000	/annum
2002-'05	NCIC Operating	111,200	/annum

2003-'04 CIHR Operating (Co_PI with Wayne Riggs, Pharmaceutical Sci).....74,403 /annum
2004-'05 B.C. Neurotrauma Grant.....40,000 /annum
2004-'09 NSERC Discovery Grant .....60,980 /annum
2004-'07 CIHR Operating (Co- with Wayne Rigss, Pharmaceutical Sci).....148,130 /annuma

j) Professional personnel who are or have worked with you: (Please note degree awarded & dates)

a) Graduate students (M.Sc. or Ph.D.)

Ph.D. Previous

B. Devlin (Grigliatti/Holm Co-supervisors)	Completed (Feb/'86)
J. Leung	Completed (Feb/'88)
N. Clegg	Completed (Dec/'91)
I. Whitehead	Completed (Feb/'93)
V. Lloyd	Completed (May/'95)
J. Whalen	Completed (April/'99)
G. Meister	Completed (Oct/'99)
M. Harrington	Completed (Aug/2000)
R. Mottus	Completed (April/2003)

M.Sc. Previous

G. Moore	Completed (Dec. '80)
R. Mottus	Completed (Sept. '83)
K. Fitzpatrick	Completed (Sept. '85)
M. Richter	Completed (Oct. '86)
D. Henderson	Completed (Aug. '87)
J. Brock	Completed (June '89)
A. Hedrick	Completed (Apr. '89)
R. Wennberg	Completed (Mar. '89)
B. Hansen	Completed (Apr. '91)
G. Meister	Completed (Apr. '92)
R. Burr	Completed (May '95)
E. James	Completed (Feb. '99)
G. Kwon	Completed (Dec. '01)
J. McNamee	Completed (June.'02)
L. Harvey	Completed (Dec. '02)
A. Carvalho	Completed (Jan. '03)

Ph.D. Current
Greg Doheny
Pamela Kalas

M.Sc. Current
Omid Taub

b). B.Sc. Honours Students (Thesis Research)

Previous		Current Position/Occupation
Randy Mottus	Completed (Apr./79)	LL.B (law); now Ph.D. student
David Leffelaar	Completed (Apr./81)	Faculty Member, Trinity U.
Tammie Leung	Completed (May/84)	M.D.
Nick Harden	Completed (May/85)	Assoc. Prof., S.F.U.
Yvette Lloyd	Completed (May/86)	Assist. Prof., Dalhousie U.
Joanne Brock	Completed (May/86)	M.D./Ph.D.
Ian Whitehead	Completed (May/87)	Assoc. Prof., Rutgers Univ.

Thien-Ly Nguyen	Completed (Apr./98)	
Andrea Procter	Completed (Apr./99)	M.D. student, U.B.C.
Tara Collins	Completed (Apr./99)	Researcher, Ont. Cancer Research
Tyler Simpson		(NSERC Summer Fellowship)

j) Professional personnel who are or have worked with you . . . . . *continued*

c) Post-doctoral Fellows

Previous	Present Position
Dr. Barry Malchi (1983)	
Dr. Rosemary Shade (1985)	Associate Prof, U. Wisconsin
Dr. Allana Ruddell (NSERC Fellow) (1984-87)	Associate Prof., U. Syracuse
Dr. James Williams (Killam Fellow) (1989-91)	Biotechnology Industry, USA
Dr. Mark Ring (NCE Fellow) (1991-94) -	Res. Associate, Agriculture Canada
Dr. Dwayne Hegedus (NSERC Fellow 1995-97)	Staff Scientist, Agricult. & Agri-food Canada
Dr. Richard Sobel (1995-97) -	Staff Scientist at Prostate Cancer Center
Dr. Thomas Pfeifer (NCE Fellow 1993-94); NSERC Fellow 1994-96) – NeuroTherapeutics, Inc.	
Dr. Peter Knight (Killam Fellow 1997- 1999; Res. Assoc. 200-2002) – NeuroTherapeutics, Inc.	

Current

Dr. Randall Mottus

d) Research Associates

Previous	Present Position
Dr. Donald Sinclair (1982-'90)	Research Assoc with B. Honda at SFU
Dr. Robert Camfield (1987-'89)	Professor, Capillano College
Dr. Robert Lansman (1984-'91)	Prof., U. Wisconsin,
Ms. Annie Bokova (M.Sc.) (1993-'97)	Investment Analyst
Mr. Jerry Hedry (M. Sc.) (1995-'97)	UBC Medical School - student
Mr. Randy Mottus (M.Sc. & LL.B.) (1989-'97)	Post-doctoral Fellow, UBC
Mr. Mike O'Grady (M.Sc.) (1990-1998)	Research Scientist at Promega, Inc.
Ms. Sonal Brambhat (2001-2003)	Res. Assoc. at Prostate Cancer Res. Center
Mr. Dean Mulyk (2002-2004)	Res. Sci. at BRI, Montreal
Mr. Layne Harvey (200302004)	Medical School, UBC

Current

Dr. Craig Berezowsky

Dr. Sarbjit Ner

Dr. Thomas Pfeifer

e) Sabbatical Visitors

Name	Year(s)	Name	Year
Dr. John Tonzetich	1985-86	Dr. Gunter Reuter	1994
Dr. Ashish Duttagupta	1982, and 1989	Dr. Veiko Krause	1995
Dr. Michael Bentley	1988	Dr. Andrew Hobbs	1995

Dr. Gunter Reuter	1991	Dr. Maria Pérez-Parallé	1995
Dr. G. Kchachatourians	1992	Dr. Ingrid Faye	1998

k) **Teaching responsibilities:**
(Course/section, enrollment, laboratory content, contact hours, teaching assistance associated with course or section (T.A., marking, materials preparation, etc.) Please include 448/449).

Biol. 201: Introductory Biochemistry (3 lectures/week; 1 semester) (1/3 time)

Year	Students	T.A.s
1992	155	2

Biology 334 Introductory Genetics (3 lect./week each course; given in Fall of the year)

Years	Students	T.A.s
1985-86	268	4
1986-87	268	4
1987-88	280	5
1988-89	475	8
1989-90	565	11
1990-91	472	11
1991-92	475	11
1992-2000	>500	10-13
2001-present	>600	10

Biology 335: Introductory Molecular Genetics (3 lect./week each course; given in Spring of the year)

Years	Students	T.A.s
1985-86	268	4
1986-87	268	4
1987-88	280	5
1988-89	475	8
1989-90	565	11
1990-91	472	11
1991-92	475	11
1992-present	>500	9-10

Biology 337: Genetics Laboratory Course (6 hours/week/section; 1 semester)

Year	Student	T.A. ($^1/_2$ - time each)
1985-86	Enrollment limited by room =27	2
1986-87	always full	2
1987-88	2 sections/wk.	2 (12 hours/wk total, @ 6hr/wk/section)
1988-89	2 sections/wk. (both full)	2
1989-90	2 sections/wk. (both full)	2
1990-91	2 sections/wk. (both full)	2
1991-92	2 sections/wk. (both full)	2
1992-94	2 sections/wk. (both full)	2
1994-95	2 sections/wk. (both full)	3
1995-96	2 sections/wk. (both full)	3
1997-98	2 sections/wk. (both full)	3
1997-98	2 sections/wk. (both full)	3

1995-96	2 sections/wk. (both full)	3
1997-98	2 sections/wk. (both full)	3
1997-98	2 sections/wk. (both full)	3
1998-99	2 sections/wk. (both full)	3

Biology 448: **Idependent Research** (full academic year course = 2 semesters; 6 units/student)

Year	Student name	further education
1985-86	W. Blair	(went on to M.Sc., McGill)
	JoAnn Brock	(went on to M. Sc., UBC; Ph.D., U. North Carolina)
	Andrew Leask	(went on to Ph.D., U. Chicago)

Biology 448: **Idependent Research** (full academic year = 2 semesters; 6 units/student) *continued* . . . .

1986-87	C. Taylor	(went on to M.Sc.)
	Susan Minnaker	(went on to M. Sc., U. of Alberta)
1987-88	Vivian Ngan	(went on to Ph.D., Wesleyan U.)
	Claudia Salinas	(went on to M.Sc., U.B.C.)
1988-89	Tristan White	
1989-90	Charles Abel	(went to Med. School)
	Minto Vig	(went on to M.Sc., U.B.C.)

Year	Student name	further education
1990-91	Heather Jenkins	(went to Med. School, U.B.C.)
1991-92	8 students - all were full year	
	Grant Sparrow	Clinton Teng
	Dave Dyment	Layne Harvey
	Barney Lee	Gwen Mahon
	Agela Rivers	Greg Roth
1992-93	6 students - all were full year (6 credits)	
	Dave Dyment	Galeep Lalee
	Chris Lee	Charles Warrington
	Layne Harvey	Steve Bakbazuk
1994-95	13 students - all were full year (6 credits each)	
	Dave Bechtold	Angela King
	Joe Campbell	Jim Kwok
	Kim Currie	Kim MacDonald
	Tasjeem Hameer	Tamiko Musgrove
	Erick James	Mariko Tomagane
	Manahaz Kermati	Pat Whalen
	Caucer Wong	
1995-96	9 students - all were full year (6 credits each)	
	Alvar Carlson	Yuyu Hii
	Manpreet Jasal	Robert Kingland
	Fayaz Mawani	Mariko Moniwa Seung Park Brian Rostek
	Elizabeth Yew	
1996-97	4 students - all were full year (6 credits each)	
	David Barr	
	Christopher Murawsky	
	Susan Leong-Sit	

Gina Kwon

1997-98 7 students - all were full year (6 credits each)

Carvallo, Bella	Kwon, Gina
Doheny, Greg	Lam, Dawn
Gill, Parveen	O'Dor, Ester
Tsai, Judy	

1998-99 Harvey, Layne (enrolled in M.Sc. program)

1999-2000 Yeh, Nancy (Customs & Immigration Canada)

2001-2002 Tsang, Royal (medical school)

Biol.ogy 448: **Idependent Research** (full academic year = 2 semesters; 6 units/student) *continued . . .*

2002-2003 Alvarez, Barbara
Mis, Jacek

2003-2004 6 students - all were full year (6 credits each)

Duthie, Kia	Mis, Jacek
McEvoy, Patrick	Modesto, Dan
Min, Yoohee (Joy)	Wheeler, Lee

Biol. 449: (Honour's Students - Thesis)

Year	Student	further education
1978-79	Randy Mottus	(M. Sc. and L.L.B. at UBC)
1980-81	David Leffelaar	(M. Sc.)
1983-83	Tammy Leung	(Medical School, UBC)
1984-85	Nick Hardin	(Ph.D., Oxford U.)
1985-86	JoAnn Brock	(M. Sc. UBC, and Ph. D. at U. North Carolina)
1985-86	Yvette Lloyd	(Ph.D., U.B.C.)
1986-87	Ian Whitehead	(Ph.D., U.B.C.)
1988-89	Peter Choi	(Med. School, U.B.C.)
1989-90	Mike Harrington	(Ph.D., U.B.C.)
1996-97	Chris Murawsky	(Ph. D., McGill Univ.)
1997-98	Thien-Ly Nguyen	
1998-'99	Tara Collins	(Researcher @ Ontario Cancer Res. Ctr.)
	Anrea Procter	(Med. School, U.B.C.)
2004-'05	Tyler Simpson	

Biol. 508: (3 units = 2 hrs/week; full year)

Year	Students	Year	Students
1985-86	7	1992-93	9
1986-87	8	1993-94	8
1987-88	9	1994-95	7
1988-89	7	1995-96	7
1989-90	6	1997-98	5
1990-91	7	1998-99	6
1991-92	7		

Genetics 502 (12 contact hours - lecturing)

Years

1985-91 course enrollment varied from 18 to 30 students

Medicine 590 (Cell Biology Graduate Course)

- 1 week/yr. course enrollment is about 15 to 20 students per year

5. SERVICE:

a) Departmental Service

1. Member of Supervising Committee:

Name	Degree	Supervisor	Status
Clark, Geoffrey A.	M.Sc.	Dehnel, R.	Completed
Johnson, Carey	M.Sc.	Holm, D.	Completed

5. a) Departmental Service.....*continued*

Member of Supervising Committee.....*continued*

Name	Degree	Supervisor	Status
Wong, David T.L.	M.Sc.	Suzuki, D.	Completed
Tattersall, Philippa	M.Sc.	Holm, D.	Completed
Marchant, Gary	Ph.D.	Holm, D.	Completed
Button, Linda	M.Sc.	Estell. C. (Biochemistry)	Completed
Cserjesi, Peter	M.Sc.	Reeves, R.	Completed
Chan, Isaac	M.Sc.	Stich, H. (Cancer Research)	Completed
Larsen, Trina	M.Sc.	Miller, R. (Microbiology)	Completed
Myers, Caroline	Ph.D.	Griffiths. A. (Botany)	Completed
Peters, John	M.Sc.	Griffiths, A. (Botany)	Completed
Irwin, David	Ph.D.	McGillivray, R. (Biochemistry)	Completed
Newton, Craig	M.Sc.	Tener, G. (Biochemistry)	Completed
Firth, James	M.Sc.	Holm, D.	Completed
Rasmussen, Colin	M.Sc.	Berger, J.	Completed
Freeman, Douglas	M.Sc.	Brock, J.	Completed
Ching, Ada	M.Sc.	Berger, J.	Completed
Pitts, Ronald	Ph.D.	Berger, J.	Withdrew
Sajjadi, Ferreydoun	M.Sc.	Spiegelman, G. (Microbiology)	Completed
Horvath, Dan	M.Sc.	Spiegelman, G. (Microbiology)	Completed
Stewart, Susan	Ph.D.	Smith, M. (Biochemistry)	Completed
Vickery, Dan	Ph.D.	Griffiths, A. (Botany)	Completed
Peters, Ken	Ph.D.	Rose, A. (Medical Genetics)	Completed
Wolfe, Cori	M.Sc.	McPherson, J. (Botany)	Completed
Sajjadi, Ferreydoun	Ph.D.	Spiegelman, G. (Microbiology)	Completed
DeCamillis, Mark	Ph.D.	Brock, H. (Zoology)	Completed
Rhametullah, Shamsa	M.Sc.	Berger, H. (Zoology)	Completed
Stringham, Eve	Ph.D.	Candido, P. (Biochemistry)	Completed
Mathews, Kathy	M.Sc.	Tener, G. (Biochemistry)	Completed
Kim, James	M.Sc.	Holm, D. (Zoology)	Completed
Panno, Joe	Ph.D.	Spiegelman, G. (Microbiology)	Completed
Daly, Mark	Ph.D.	Brock, H. (Zoology)	Completed
Gilchrist, Erin	Ph.D.	Moerman, D. (Zoology)	Completed
Li, Gang	Ph.D.	Stich, H. (Cancer Research)	Completed
Mitchell, Heather	M.Sc.	Wood, S. (Medical Genetics)	Completed
Pachal, Richard	M.Sc.	Spiegelman, G. (Microbiology)	Completed
Seto, Nina	Ph.D.	Tener, G. (Biochemistry)	Completed

Tang, Liren	Ph.D.	Berger, J. (Zoology)	Completed
Forsythe, Ian	M.Sc	Theilmann, D. (Zoology)	Completed
Chua, Gordon	M.Sc.	Berger, J. (Zoology)	Completed
Dragger, Randy	Ph. D.	Juirloff, D. (Medical Genetics)	Completed
Zhou, Hong	Ph.D.	Berger, J. (Zoology)	Completed
Adl, Mike	Ph.D.	Berger, D. (Zoology)	Completed
Guerette, Paul	Ph.D.	Gosline, J. (Zoology)	Completed
Milne, Tom	M. Sc.	Brock, H. (Zoology)	Completed
Taylor, Lydia	M. Sc.	Juriloff, D. (Medical Genetics)	Completed
Sepp, Katherine	Ph. D.	Auld, V. (Zoology)	Completed
Fisher, Cynthia	Ph. D.	Brock, H. (Zoology)	In progress
Wang, Yingung	Ph.D.	Brock, H. (Zoology)	Completed
Chow, Jennifer	Ph.D.	Brown, C. (Medical Genetics)	In progress
Savage, Kenneth	Ph.D.	Gosline, J. (Zoology)	In progress
Pathakamuri, Ajay	Ph.D.	Theilmann, D. (Plant Sciences)	Completed
Landry, Josette-Renee	Ph.D.	Maeger, D. (Med. Genetics/Cancer Res.)	Completed

5. a) **Departmental Service.....*continued***

Member of Supervising Committee.....*continued*

Name	Degree	Supervisor	Status
Huijskens, Ilse	Ph.D.	Theilmann, D. (Plant Sciences)	In progress
Kwon, Ed	Ph.D.	Brown, C. (Medical Genetics)	Completed
Yeung, Lillian	M. Sc.	Rennie, P. (Pathology & Lab. Medicine	In progress
Stein, Jake	Ph. D.	Devlin, J (Zoology & Fish & Oceans Can.)	In progress
Johnson, Laura	Ph.D.	Jeffries, W. (Biotechnology Lab)	Completed
Joyce, Tan	M. Sc.	Brock, H. (Zoology)	In progress
Chittaranjan, Suganthi	Ph.D.	Mara, Marco (B.C. Genome Centre)	In progress
Spinelli, Egidio	M. Sc.	Tetzlaff, Wolfram (ICORD, Zoology)	In progress
Thorogood, Nancy	M. Sc.	Brown, Carolyn (Medical Genetics)	In progress
Tymchuk, Wendy	Ph.D.	Devlin, R. (Zoology & Fish & Oceans Can)	In progress

Examination Committees

M.Sc.	Name	Supervisor	Department
	Peacock, D.	(McPhail, Supervisor)	Zoology
	Nomura, D.	(Wilimovsky, Supervisor)	Zoology
	Tattersall, P.	(Holm, Supervisor)	Zoology
	Williams, D.C.	(Carefoot, Supervisor)	Zoology
	Jones, James	(Wellington, Supervisor)	Zoology
	Clark, G.A.	(Dehnel, Supervisor)	Zoology
	Billy, Allen J.	(Liley, Supervisor)	Zoology
	Chan, Isaac	(Stich, Supervisor)	Cancer Research
	Rasmussen, Colin	(Berger, Supervisor)	Zoology
	Newton, Craig	(Tener, Supervisor)	Biochemistry
	Sajjadi, F.	(Spiegelman, Supervisor)	Microbiology
	Glen, David	(Brooks, Supervisor)	Zoology
	Bandoni, S.	(Brooks, Supervisor)	Zoology
	Popatia, S.	(Perks, Supervisor)	Zoology
	Firth, James	(Holm, Supervisor)	Zoology
	Starr, Terry	(Woods, Supervisor)	Medical Genetics
	McClennan, Deborah	(McPhail, Supervisor)	Zoology
	Vellani, Tia	(Griffiths, Supervisor)	Botany

Huggard, David	(Sinclair, Supervisor)	Zoology
Harris, Michael	(Milsom, Supervisor)	Zoology
Makihara, David	(Wood, Supervisor)	Medical Genetics
Henderson, Karen	(Wood, Supervisor)	Genetics
Huggard, David	(Sinclair, Supervisor)	Zoology
Makihara, D.	(Kalousek, Supervisor)	Medical Genetics
Ostlin, Janice	Jones, Supervisor	Zoology
Milne, Tom	Brock, Supervisor	Zoology
Stilwell, Katherine	Tetzlaff, Supervisor	Zool./Neurosci. Prog.
Poon, Art	Otto, Supervisor	Zoology
Frid, Leonardo	Myers, Supervisor	Zoology
Elliot, Nicole	Jones, Supervisor	Zoology
Mohseni, Kasra	Teh, Supervisor	Microbiology
Jarrett. Jeffrey	Scudder, Supervisor	Zoology

5. a) Departmental Service.....*continued*

Ph.D. *a) Qualifying Exams*

Name	Supervisor	Department
Devlin, R.	Grigliatti/Holm, Supervisors	Zoology
Marchant, G.	Holm, Supervisor	Zoology
Wu, Chung I.	Wehrhahn, Supervisor	Genetics
Woodend, J.	Person, Supervisor	Genetics
Dippel, E.	Stich, Supervisor	Zoology
Pope, D.	Person, Supervisor	Genetics
Irwin, D.	McGillivray, Supervisor	Genetics
Myers, C.	Griffiths, Supervisor	Genetics
Pitts, R.	Berger, Supervisor	Zoology
DeCamilis, M.	Brock, Supervisor	Genetics
Joshi, Phalgun	Dennis, Supervisor	Genetics
Gilchrist, E.	Moerman, Supervisor	Zoology
Adl, S.	Berger, Supervisor	Zooogy
Tang, Liren	Berger, Supervisor	Zoology
Milne, Tom	Brock, Supervisor	Zoology
Landry, Josette-Renee	Maeger, Supervisor	Cancer Res.
Savage, Ken	Gosline, Supervisor	Zoology
Soltani, Mohammed	Douglas, Supervisor	Genetics
Johnson, Laura	Jefferies, Supervisor	Zoology
Tymchuck, Wendy	Devln, R./ Taylor, E.	Zoology
Wanner, Kevin	Isman, M./Theilmann, D.	Plant Sciences
Thorogood, Nancy	Brown, C.	Medical Genetics

b Ph. D. Thesis Defences

Candidate's Name	Supervisor	Dept. or Program
Ingman-Baker, J.	P. Candido, Supervisor	Biochemistry
Milsom, W.	D. Jones, Supervisor	Zoology
Rajput, Bhanu	R.C. Miller, Jr., Supervisor	Microbiology
Burke, Kathy	R.C. Miller, Jr., Supervisor	Microbiology
Hay, C.	P. Candido, Supervisor	Biochemistry
Christ, Barbara J.	C. Person, Supervisor	Botany
Kothari, Rashmi	E.P.M. Candido, Supervisor	Biochemistry

Marchant, Gary	D. Holm, Supervisor	Zoology
Dobinson, Kathy	G. Spiegelman, Supervisor	Microbiology
Russnak, Rolin	P. Candido, Supervisor	Biochemistry
Barran, Paul	R. McMaster, Supervisor	Medical Genetics
Myers, Caroline	A. Griffiths, Supervisor	Botany
Webb, Vera	G. Spiegelman, Supervisor	Microbiology
Levy, David	T. Northcote, Supervisor	Zoology
Downing, Willa	P. Dennis, Supervisor	Biochemistry
Kawchuk, Lawrence	J. McPherson, Supervisor	Plant Science
Vickery, Daniel	A.J.F. Griffiths, Supervisor	Botany
Ofulue, Ester	P. Candido, Supervisor	Biochemistry
Rowe, Locke	G. Scudder, Supervisor	Zoology
Morgan, M.M.		U. of, Australia
Margoulas, C.		U. Ottawa
Downing, Willa	P. Dennis, Supervisor	Biochemistry
Aggrey, Samuel E.	K.M. Cheng, Supervisor	Animal Science
Leggett, David	P. Candido, Supervisor	Biochemistry
Zandstra, Peter	J. Piret, Supervisor	Chem.& Bio-Res Eng.

5. a) Departmental Service.....*continued*

b) Ph. D. Thesis Defences

Candidate's Name	Supervisor	Dept. or Program
Guerette, Paul	J. Gosline, Supervisor	Zoology
Brunstein, John	C. Astell, Supervisor	Biochemistry
Pearsall, Isobel	J. Myers, Supervisor	Plant Sciences
Kyba, Michael	H. Brock, Supervisor	Zoology
Allina, Sandra	K. Douglas, Supervisor	Botany
Chow, Kevin	J. Davies, Supervisor	Microbiology
Lee, Sun Young	M. Krause Supervisor	Biol,, U. New Brunswick
Brownlie, J. C.	S. Whyard, Supervisor	Australian Natl. Univ.
Behzad, A. R.	J. Hogg, Supervisor	Pathology & Lab. Medicine
Crowe, E.	P. Candido, Supervisor	Biochemistry
Wang, Q	C. Douglas, Supervisor	Botany
Virag. A.	A. J. Griffiths, Supervisor	Botany

2. Faculty Hiring Committees

William Milsom - Comparative Physiology (member of committee)
Hugh Brock - Developmental Biology (member of committee)
Don Moerman - Molecular Biology (member of committee)
Martin Adamson - Parasitology (Chairman)
Linda Matsuuchi - Cell Biologist (Chairman)
Susan Minaker - Develop. Biol. and Genetics Laboratory Inst.
Craig Berezowski - Genetics instructor
Vanessa Auld - Molecular Physiologist (member of committee)
Wolfram Tetzlaff - Neurophysiologist (member of committee)
Michael Withlock - Population Genetics (Chairman)
Sara Otto - Evolutionary Biologist (Chairman)
Women's URF, NSERC Committees
Erick Taylor - Fish Population Biology (Chairman)
CHORD Assist. Professor I (member of committee)

3. Tenure, Promotion Committees

- Several pre-1991

Chairman, James Berger, Promotion to Full Professor
Chairman, John Steeves, Promotion to Full Professor
Chairman, Hugh Brock, Promotion to Full Professor
Chairman, Martin Adamson, Promotion to Full Professor
Chairman, Linda Matsuuchi, Promotion to Associate Professor
Member, Vanessa Auld, Reappointment
Chairman, Taylor, Erick - Molecular Population Biology and Ecology - Promotion to Assist. Prof.
Member, Rosemary Redfield - Tenure and Promotion to Assoc. Professor
Member, Michael Whitlock - Reappointment
Member, Donald Moerman - Promotion to Full Professor
Chairman, Michael Whitlock - Tenure and Promotion to Assoc. Professor
Chair/Member, Wolfram Tetzlaff - Promotion to Full Professor
Member, Lee Gass - Promotion to Full Professor
Member, Vanessa Auld - Tenure and Promotion to Assoc. Professor
Member, Harold Kasinsky – Promotion to Full Professor
Chair/Member, Matt Ramer – Re-appointment Zoology/ICORD Review Committee
Chair/Member, Craig Berezowsky – Re-appointment Review Committee
Member. Michael Whitlock – Promotion to Full Professor

5. a) Departmental Service.....*continued*

4. Zoology Curriculum Committee
   - Restructured all Zoology courses under Biology

5. Zoology Graduate Admissions and Scholarship Committee
   1986 – 1999 Member
   1989-1995 Chairman and Member
   1996-1999 Chairman, Scholarships and Fellowships Sub-committe

6. Zoology Research Development Committee
   1996 — > Member

5. b) University Service

1. Executive of Genetics Advisory Board - Genetics Program - 1980-1996
2. Genetics Graduate Admissions Committee - Member 1980-1995
3. University A & P Appeal Committee - Member 1989-continuing
4. Molecular Biology Training Program, Executive (became the Biotechnology Labs)
5. Molecular Biology Center, Building Comm. (became NCE building)
6. Graduate Council - Member 1990-continuing
7. Interdisciplinary Graduate Program Review Committee - Member 1990-91
8. University Graduate Fellowships Committee - Member 1992-94
9. Mentor Program, Faculty of Science 1993-continuing
10. UBC Science Undergraduate Society – career advisor
11. Dean's Committee on Promotion and Tenure (DACOPAT) - 2001 – present

5 c) Community Service (science/education oriented)

1. Lectures "Genetics & Modern Society" - Continuing Education Program
2. Volunteer for "Scientist in Schools" Program - 1993 - 1999
3. UBC Connect Program speaker 1995 - continuing

5 d) Other professional

1. Member, Insect Biotechnology Network Centre of Excellence
2. Associate, Canadian Genetic Disease Network Centre of Excellence
3. Member, International Collaboration on Repair Discoveries (ICORD)
4. Member, The Science Advisory Board
5. Grant Panel Member, MIUR (Italian Ministry for Education and University Research),

6. RESEARCH GROUP:

a) Current funding ((current = 2002/2003; sources and amounts)

1999-2004	NSERC Operating Grant	59,450 /annum
2001-2004	NSERC Strategic Grant	165,500 /annum
2001-2006	CIHR - Interdisciplinary Health Res. Team (J. Holden, leader)	832,000 /annum
2004-'05	InCell Expression Systems, Inc. (contract)	46,180
2002-2003	Neuro Therapeutics, Inc. (contract)	526,223 /annum
2002-	CFI Grant – ICORD (Dr. John Steeves, leader)	12,900,000
2002-'03	CIHR POP	100,000 /annum
2002-'05	NCIC Operating	112,200 /annum
2003-'04	CIHR Operating (Co_PI with Wayne Riggs, Pharmaceutical Sci.)	74,403 /annum
2004-'05	B.C. Neurotrauma Fund	40,000 /annum
2004 -'09	NSERC Discovery Grant	60,980 /annum
2004 –'07	CIHR Operating (Co-PI with Wayne Riggs, Pharmaceutical Sci.0	148,130 /annum

6. b) Current personnel - Research Group

Research Associates (Ph.D.s with at least 3 years prior experience as PDF)

Dr. Craig Berezowsky
Dr. Sarbjet Ner
Dr. Thomas Pfeifer

Post-doctoral Fellow

Dr. Randall Mottus

Ph.D. Students

Gregory. Doheny
Pamella Kalas

M.Sc.Students

Omid Taub

Honour's Thesis (Biology 449) Students

Tyler Simpson

Biology 448 (directed studies) Students

Duthie, Kia	McEvoy, Patrick
Min, Yoohee (Joy)	Mis, Jacek
Modesto, Dan	Wheeler, Lee

c) Major equipment (≥ $10K, date of purchase)

-80° C Harris Ultra-freezer, 1996 NSERC Equip. grant to T.A.G
autoclave - Cell Group grant 1999
Nucleic Acid Phospho-imager System - Cell Group Grant 2000
GFP fluorescence Microscope - Cell Group Grant 2000
Luminometer- NSERC Equip grant to T.A.G $ 47,500
Real-time Confocal Microscope – CIHR equipment grant to Cell Group - $ 380,000
Tissue Culture Facility grant to Cell/Genetic Group $47,500

d) Laboratory space and locations

Biological Sciences Rooms: 3447, 3448, 1325, 2461, and shared equipment room 3444

e) Collaborative and interdisciplinary research which has resulted in joint publication or grant applications

Bertrand Clark - Department of Statistics
- Research on: Computer Modelling of Chromatin Assembly and Competition between limited Structural Components of Chromatin
- Manuscript: Theoretical and Applied Genetics - 181: 137-155. 1996.

George Spiegelman - Department of Microbiology
- Research on: gene structure, packaging and expression
- Manuscript: Gene 198: 229-236. 1997.

Wilf Jefferies - Biotechnology Laboratory
- Research on human melanotransferrin protein expression and function
- Manuscript: Protein Expression and Purification 15: 296-307. 1999

e) Collaborative and interdisciplinary research which has resulted in joint publication or grant applications - *continued*.....

David Theilmann - Agriculture Canada
- Research on: Use of Baculovirus Promoter Elements to Express Invertebrate and Vertebrate Proteins in Tissue Culture Cells
- NSERC Strategic Grant 1997-2000
- Several Disclosures on: Transformation and Protein Expression Vectors
- Patent filed in U.S. March 1997 to protect transformation/protein expression cassettes and systems
- PCT filed March 1998
- Individ. country grants: Japan, all of Europe, Australia - Sept - Dec. 1999

David Theilmann - Agriculture Canada
- Manuscripts: Gene 188: 183-190. 1997
  Gene 207 141-149. 1998

Virology 252: 65-81. 1998

Gunter Reuter – Martin Luther University, Halle Germany
- Research on: Chromatin structure – specifically on Klett a double stranded RNA binding protein
- Manuscript: submitted to Molec. and Gen. Genetics. 2001

Ron Reid – Pharmaceutical Sciences
- Research on Pharmacogenomics of Serotonin (5HT2A, 2B, and 2C) receptors
- CIHR Grant proposal and PCT Patent Application
- Provisional Patent Application on Diagnostic for 5HT2A variants and psychosis
- Manuscript: Pharmacogenetics, **13:** 107-118. 2003

Wayne Riggs – Pharmaceutical Sciences
- CIHR joint grant: Pharmacogenetics of enzymes that Metabolize Anti-cancer Drugs

Grigliatti, Thomas A.

SUMMARY OF PUBLICATIONS

Total Published Papers:	**100**
Refereed Publications:	**93**
Papers submitted:	**4**
Papers in draft form:	**4**
Reviews:	**3**
Reviews:	**3**
Disclosure & Patents:	**Disclosures = 8; Patents = 4**
Theses: - completed:	**38 total Ph.D = 9; M.Sc. = 16; B.Sc. = 13**
- in progress:	**Ph.D = 2; M.Sc. = 1**
Technology Commercialized:	**InsectSelect™** - Launched April 1999
	Human GPCR Assay & Screening Platform – 2002
Invited Talks:	**Symposia: 32 Distinguished Lectures: 23**

MAJOR PUBLICATIONS

SARANE, T., BOWEN, HERBERT G. LEBHERZ, MAN-CHUI POON, VICTOR S. CHOW & THOMAS A. GRIGLIATTI. The hemoglobins of *Artemia salina*. I. Determination of phenotype by genotype and environment. Comp. Biochem. Physiol. 31: 733-747. 1969.

GRIGLIATTI, T. & D.T. SUZUKI. Temperature-sensitive mutations in *Drosophila melanogaster*. V. A mutation affecting levels of pteridines. Proc. Natl. Acad. Sci. U.S. 67: 1101-1108. 1970.

SUZUKI, D.T., T. GRIGLIATTI & R. WILLIAMSON. Temperature-sensitive mutations in *Drosophila melanogaster*. VI. A mutation (*para*^{ts}) causing adult paralysis. Proc. Natl. Acad. Sci. U.S. 68: 890-893. 1971.

GRIGLIATTI, T. & D.T. SUZUKI. Temperature-sensitive mutations in *Drosophila melanogaster*. VIII. A homeotic mutant, *ss*^{a40a}. Proc. Natl. Acad. Sci. U.S. 68: 1307-1311. 1971.

GRIGLIATTI, T., D.T. SUZUKI & R. WILLIAMSON. Temperature-sensitive mutations in *Drosophila melanogaster*. X. Developmental analysis of the paralytic mutation, *para*^{ts}. Devel. Biol. 28: 352-371. 1972.

GRIGLIATTI, T., L. HALL, R. ROSENBLUTH & D.T. SUZUKI. Temperature-sensitive mutations in *Drosophila melanogaster*. XIV. A selection of immobile adults. Molec. Gen. Genet. 120: 107-114. 1972.

GRIGLIATTI, T.A., B.N. WHITE, G.M. TENER, T.C. KAUFMAN, J.J. HOLDEN & D.T. SUZUKI. Studies on the transfer RNA genes of Drosophila. Cold Spring Hbr. Symp. Quant. Biol. 38: 461-474. 1974.

GRIGLIATTI, T.A., B.N. WHITE, G.M. TENER, T.C. KAUFMAN & D.T. SUZUKI. The localization of transfer RNA_5^{Lys} genes in Drosophila by *in situ* hybridization. Proc. Natl. Acad. Sci. U.S. 71: 3527-3531. 1974.

SUZUKI, D.T., T.C. KAUFMAN, D. FALK & U.B.C. DROSOPHILA GROUP. Conditionally-expressed mutations in *Drosophila melanogaster*. *In*: Genetics and Biology of Drosophila. Edited by E. Novitski & M. Ashburner. Academic Press. Vol. 2, Ch. 5: 207-263. 1976.

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Insect Expression Systems filed March 27, 1997

This is an 88 page patent with 20 Figures; it represents a substantial amount of work and covers our promoters, our shuttle vectors, our expression cassettes, our transposon based transformation and amplification technology, our cell line with inducibly controlled transposase and its derivatives, all assemblies based on these components as well as 3 cell lines expressing the human melanotransferrin p97 protein and the ITP expressing cell lines.

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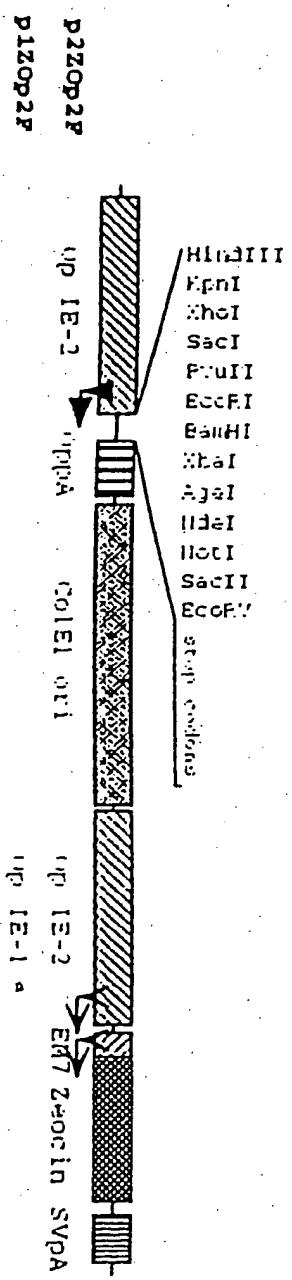
ABSTRACTS (Published & presented at Meetings)

Frankly, I no longer keep a running list or even a count of the total abstracts published and presented at meetings. There have been more than 100 talks/abstracts presented at science meetings.



Plasmid Name: p2HF

Size: 3.2 kb

Vector Base: p2.2ηp2F

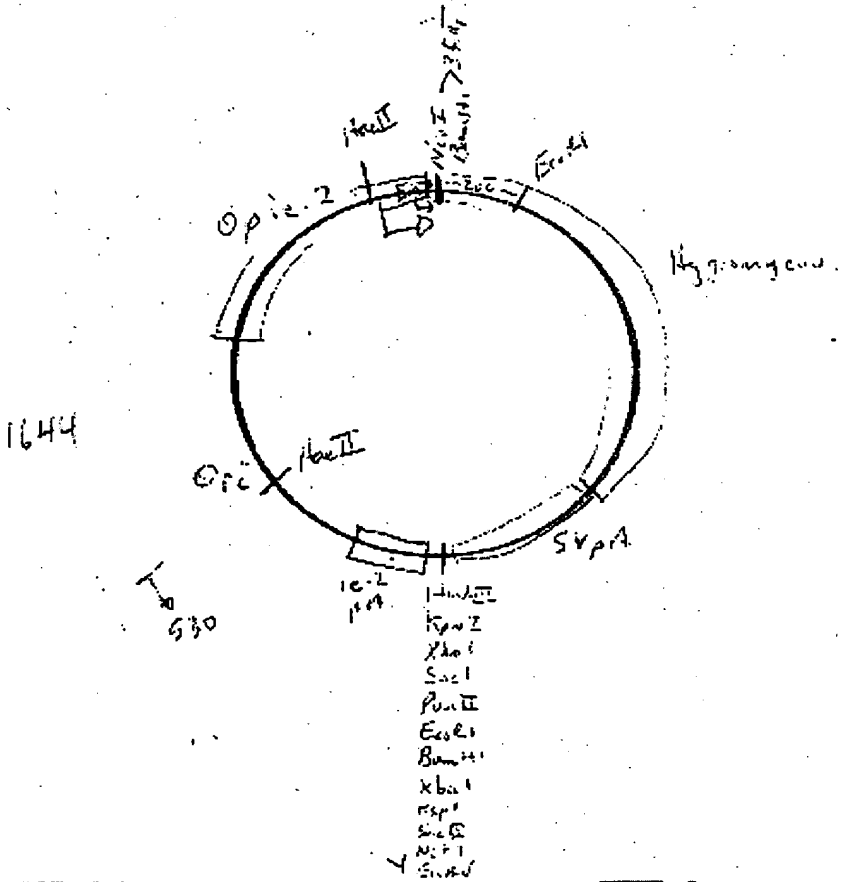
Bacterial Markers: Hygr Sougfind

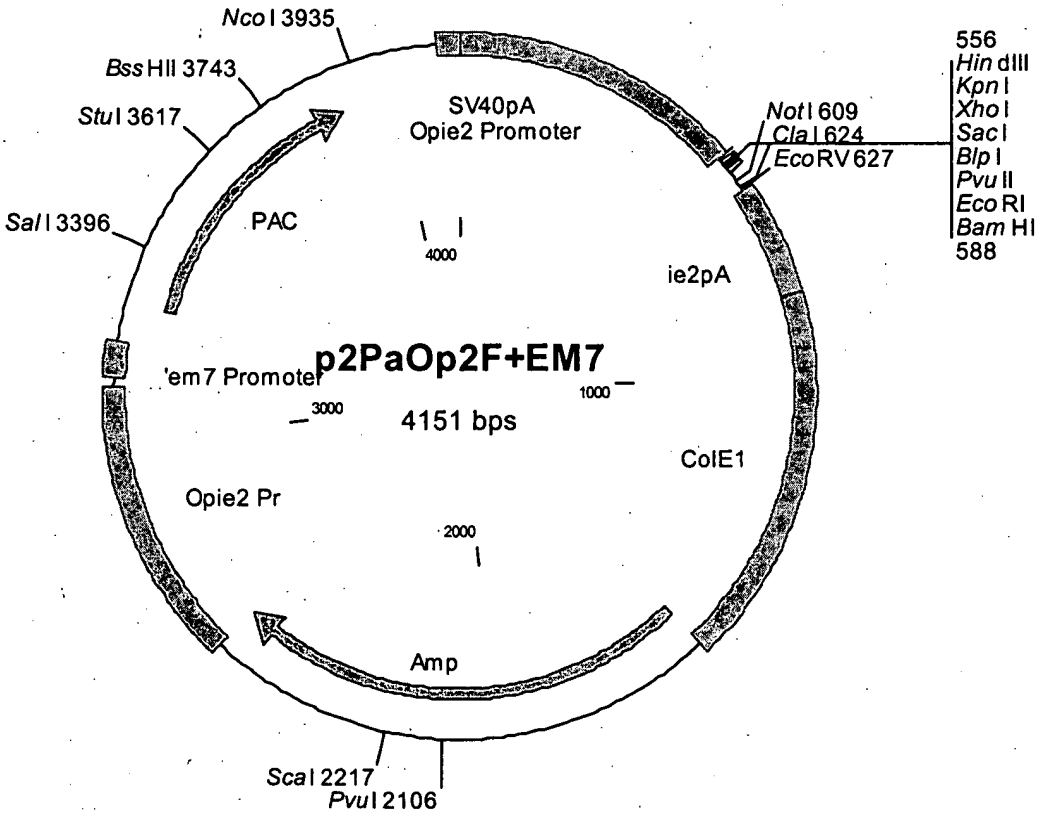
Eukaryotic Markers: Hygr.

Creator: TP

Bacterial Strain: DH5α

Insert Description: BamHI(Fill in) / HindIII 1.3 kb fragment from pHygBKS containing the hygromycin resistance gene and a SVpA tail.



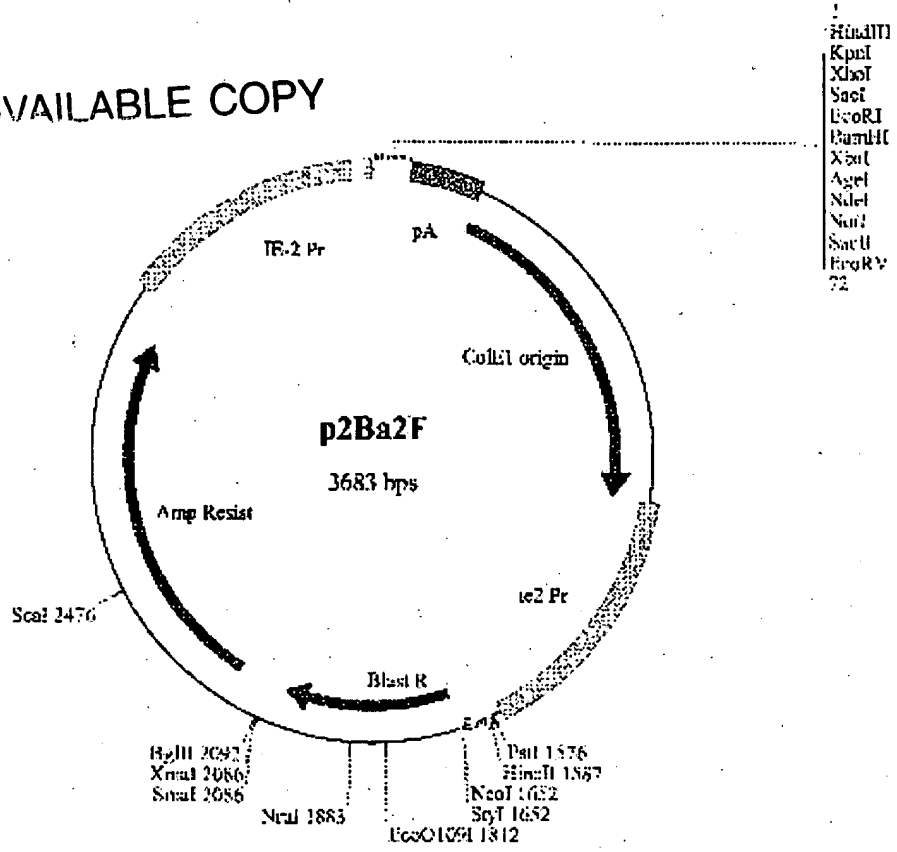


A PstI/NcoI fragment from p2Z2F (blunted with exonuclease) containing the EM7 promoter was inserted into the Pst1 site of p2PAOp2F (blunted with exonulcease)

For bacterial selection on Puromycin – add 200 ug/ml Puromycin to Low salt LB, and incubate plates at 37°C for a least 2 days.

For bacterial selection on Ampicillin – add 100 ug/ml to LB plates and incubate overnight at at 37°C.

For insect cell selection on Puromycin – add 2 ug/ml (micrograms/ml) of Puromycin to media and transfer cells once confluent.

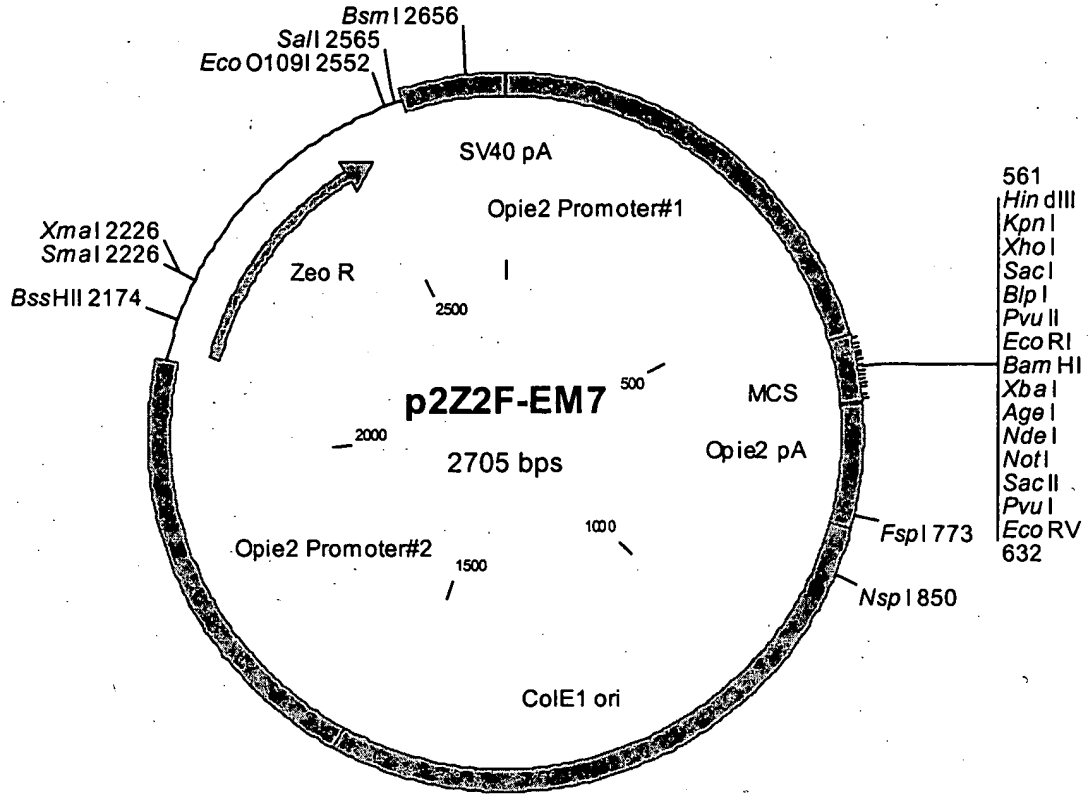


Molecule Features:

Type	Start	End	Name	Description
REGION	1	77		MCS from 2F
REGION	78	229	pA	1.82 pA
GENE	230	1008	ColE1 origin	
REGION	1009	1552	ie2 Pr	Opie2 Promoter
REGION	1580	1651		EM7 Promoter
GENE	1654	2053	Blast R	Blasticidin Resist
GENE	2172	3033	Amp Resist	
REGION	3128	3676	IE-2 Pr	OPie2 Promoter
REGION	3638	3657		2S Forward Primer

Enzymes (22 sites) LAA RES

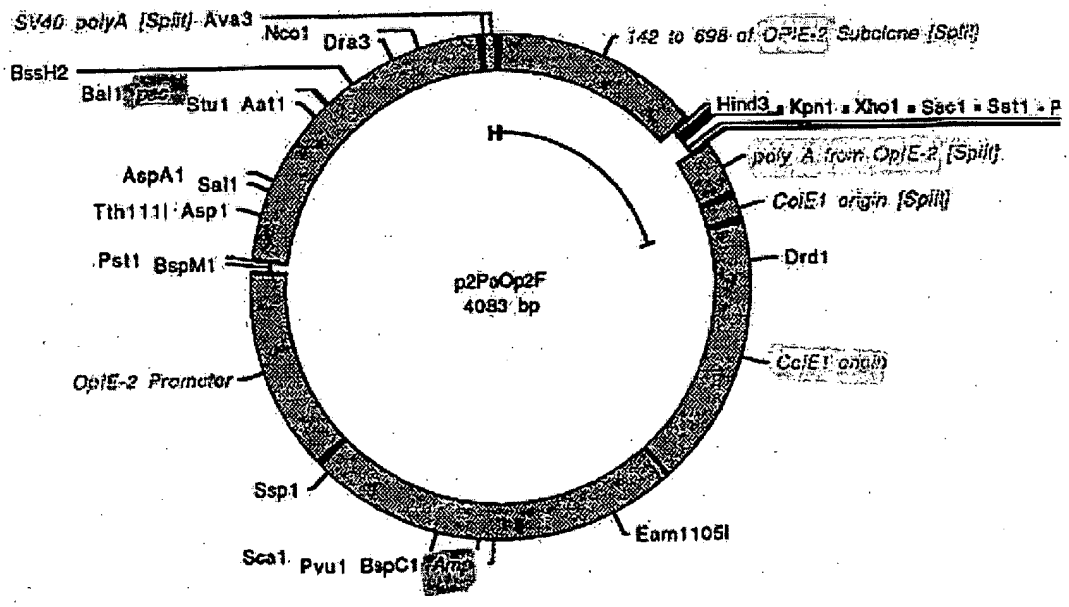
HindIII	1,	KpnI	7,	XhoI	13,	SacI	1
EcoRI	25,	BamHI	33,	XbaI	39,	AgeI	4
NdeI	50,	NotI	55,	SacII	59,	EcoRV	7
PstI	1576,	HincII	1587,	NcoI	1652,	StyI	165
EcoO109I	1812,	NruI	1883,	SmaI	2086,	XmaI	208
BglII	2092,	ScaI	2476,				

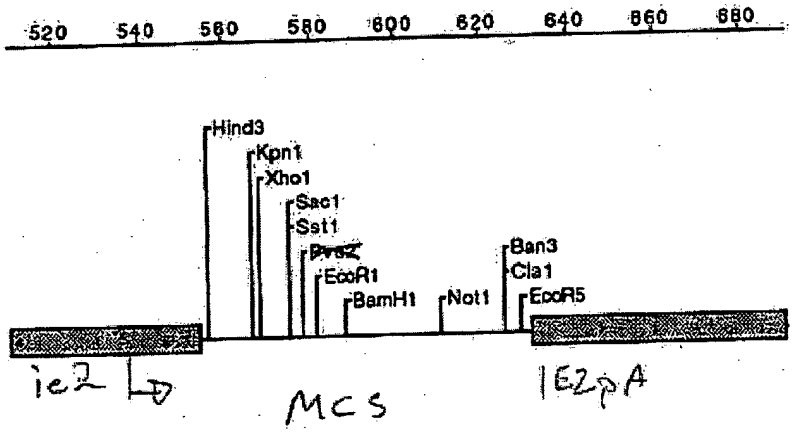


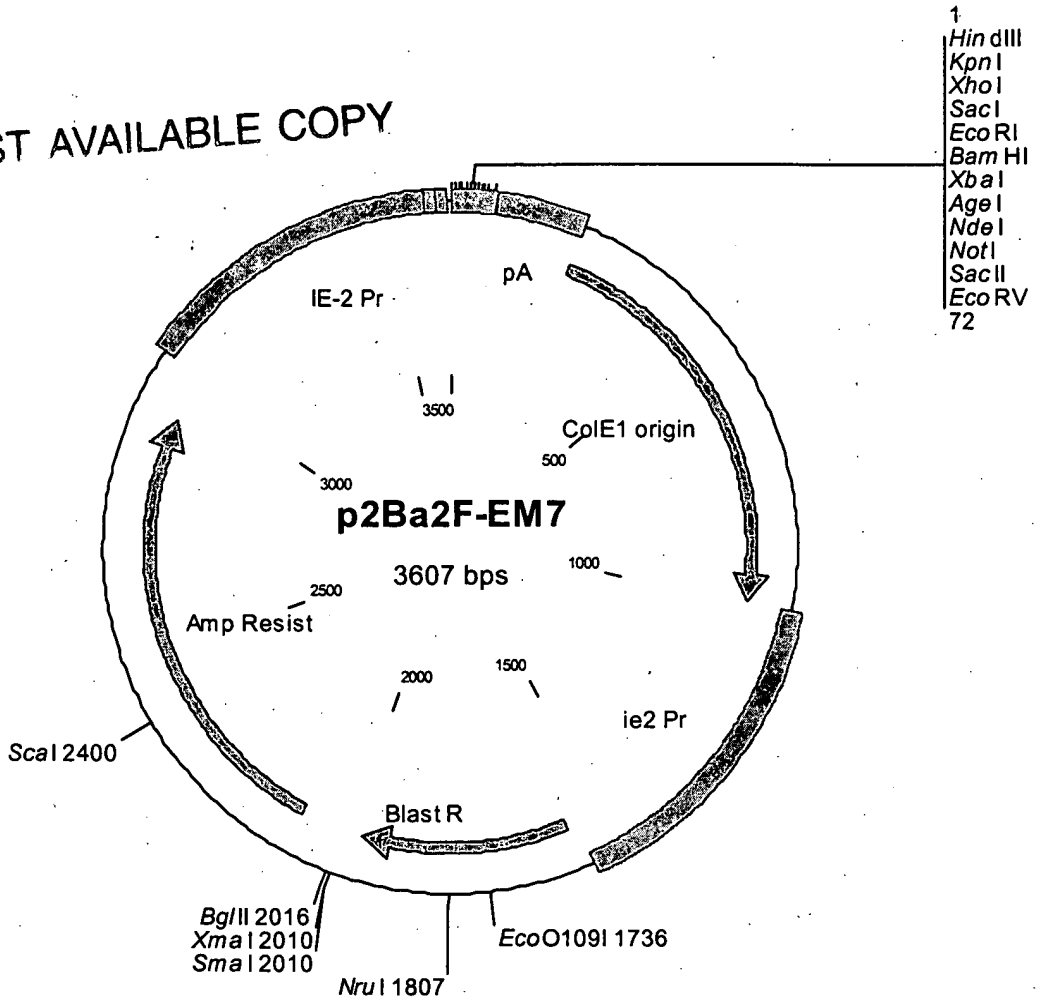
p2Zop2F with EM7 promoter removed.
Digested p2Zop2F with PstI (blunted)/NcoI (filled in) and ligated.

For bacterial selection on Zeocin – add 25 ug/ml Zeocin to Low salt LB, and incubate plates at 37°C for 24-48 hrs.

For insect cell selection on Zeocin – add 750 ug/ml (micrograms/ml) of Zeocin to media and transfer cells once confluent.







p2Ba2F with EM7 promoter removed
p2Ba2F cleaved with PstI (exo-blunted)/NcoI (filled in) and ligated

For bacterial selection on Blasticidin – add 100 ug/ml Blasticidin to Low salt LB, and incubate plates at 37°C for a least 2 days.

For bacterial selection on Ampicillin – add 100 ug/ml to LB plates and incubate overnight at at 37°C.

For insect cell selection on Blasticidin – add 25 ug/ml (micrograms/ml) of Blasticidin to media and transfer cells once confluent